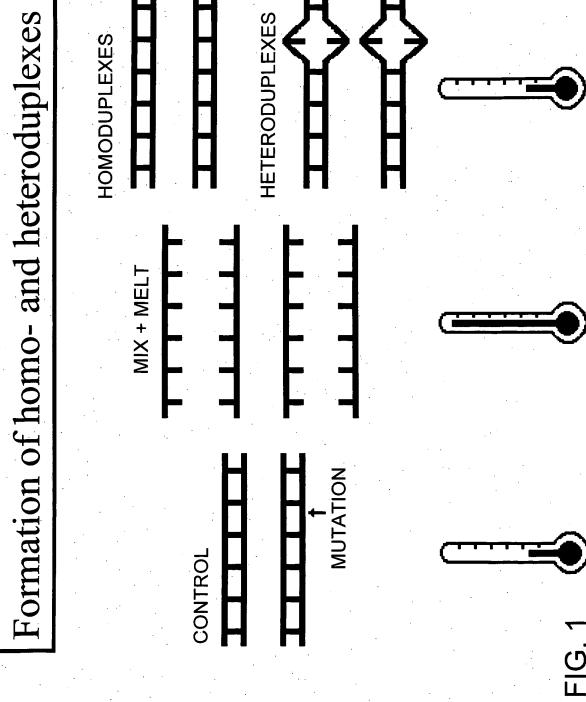
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METHOD AND SYSTEM FOR COMPARATIVE GENOMICS
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HETERODUPLEXES / CAPILLARY 1 SAMPLE INJECT TIME = 0WILD TYPE CONTROL / CAPILLARY 2 TIME = B **HETERODUPLEXES SEPARATE** TIME -**HETERODUPLEXES CAPILLARY 1** TIME . **WILD TYPE** CONTROL **CAPILLARY 2**

FIG. 2

Procedure Flowchart

Design PCR primers based on DNA sequence of reference strain or individual

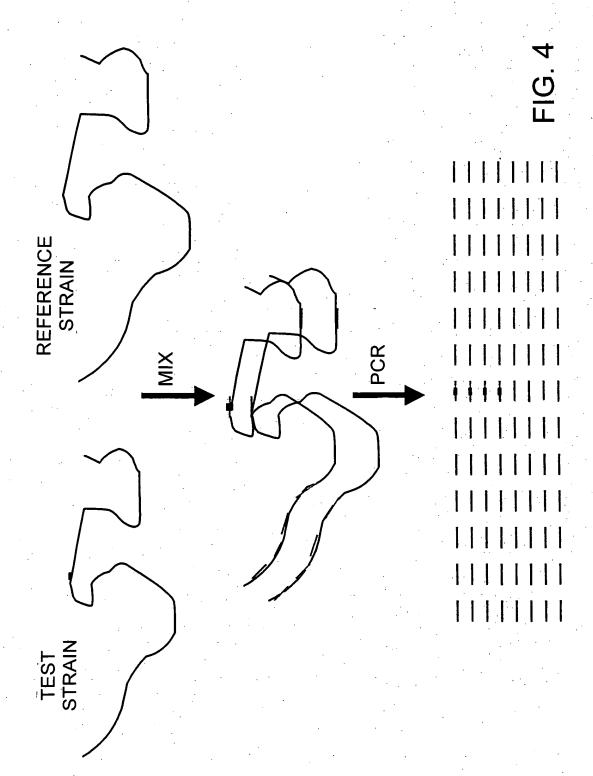
▼ Mix genomic DNAs of the reference and test strains PCR-amplify DNA regions across the genome, either single reaction or multiplexed reactions

Combining single and/or multiplexed PCR reactions

Denature and anneal PCR products to form heteroduplexes/homoduplexes

Scan by temperature gradient electrophoresis to identify heterozygous DNA fragments/variants with a single SNP/simple Indel formed by mixing reference and test strains

Determine sequences of variants to locate the exact positions of the SNP/Indel



(SEQ ID NO: 1) — GATGAGGCATTTGAC—— (SEQ ID NO: 2) — CTACTCCGTAAACTG——	(SEQ ID NO: 1) ——GATGAGGCATTTGAC——(SEQ ID NO: 2) ——CTACTCCGTAAACTG——	(SEQ ID NO: 3) ——GATGAGGCGTTTGAC— (SEQ ID NO: 4) ——CTACTCCGCAAACTG——	(SEQ ID NO: 1) ——GATGAGGCATTTGAC— (SEQ ID NO: 4) ——CTACTCCGCAAACTG—	(SEQ ID NO: 3)GATGAGGCGTTTGAC
Denature/ anneal		Denature/ anneal		
(SEQ ID NO: 1) GATGAGGCATTTGAC (SEQ ID NO: 2) CTACTCCGTAAACTG			— (SEQ ID NO: 3) — GATGAGGCGTTTGAG— —— (SEQ ID NO: 4) — CTACTCCGCAAACTG—	
-lomozygote	1 1	terozygote -		

CTACTCCGTAAACTG

(SEQ ID NO: 2)

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